Introduction

PCLM series solid state relay (SSR) I/O modules serve as control or monitoring interfaces between high level DC or AC power lines and TTL logic signals.

Features

- Exclusively solid state
- 2500 V_{RMS} optical isolation
- Industry standard package and pin-out (Opto-22 compatible)
- Low power consumption
- Single channel or quad type

Specifications

Input Modules

Field side

- Turn On/Off time
  IAC5 series: 20 msec. max.
  IAC5A series: 20 msec. max.
  IDC5B series: 100 msec. max.
- Input on/off voltage range:
  IAC5 series: 90~140 V/45 V_{RMS}
  IAC5A series: 180~280 V/80 V_{RMS}
  IDC5B series: 12~32 V/1 V_{DC}
- Input resistance:
  IAC5 series: 14 KΩ
  IAC5A series: 44 KΩ
  IDC5B series: 1.5 KΩ

Logic side:

- Supply voltage: 4~6 V
- Supply current: 12 mA max.
- Output current: 100 mA max.
- Output voltage drop: 0.4 V max.
- Breakdown voltage: 30 V_{DC}

Output Modules

Field side

- Turn On/Off time
  OAC series: ½ AC cycle max.
  ODC series: 100 µsec/750 µsec. max.
- Current rating: 3 A (@ 25°C) max.
- Contact voltage drop: 1.6 V max.

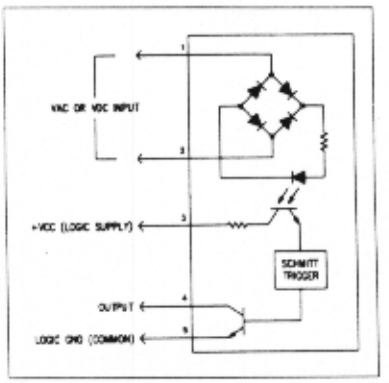
Logic side

- Supply voltage: 4~6 V
- Supply current: 12 mA max.
- Input resistance: 220 Ω

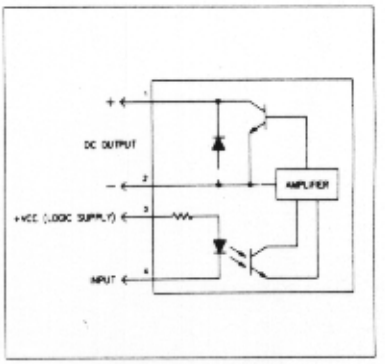
Module type		Field side		Logic side
Output module		Output voltage rating	Output current rating	Input logic and SSR status
AC Output	OAC5A	24 ~ 280 VAC	3.0 A AC	TTL low (On)
	-OAC5Q*	12 ~ 280 VAC		TTL high (Off)
DC Output	-ODC5	5 ~ 60 VDC	3.0 A AC	TTL low (On)
	-ODC5Q*			TTL high (Off)
Input module		Input On voltage	Input Off voltage	Output logic & On/Off status
AC Input	-IAC5	90 ~ 140 VAC	< 45 VAC	TTL low (On)
	-IAC5Q*			TTL high (Off)
	-IAC5A	180 ~ 280 VAC	< 80 VAC	TTL low (On)
	-IAC5AQ*			TTL high (Off)
DC Input	-IDC5B	3 ~ 32 VDC	< 1 VDC	TTL low (On)
	-IDC5BQ*			TTL high (Off)

*Quad (Q) type modules offer four channels in one high-density package. These modules are used only with the PCLD-7224Q SSR carrier board and without an input bridge.

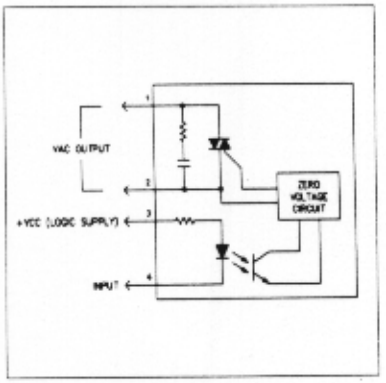
Block Diagrams



AC/DC Input (IAC5/IDC5)



DC Output (ODC5)



AC Output (OAC5)